

Exhibit L

In the Matter Of:

UNITED STATES vs

GOOGLE

JASON HSUEH

November 15, 2023



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1 use RASTA?

2 A. I couldn't speak to all product teams

3 for -- across all of Google.

4 Q. What about for display advertising?

5 A. For within display ads, there are

6 some cases where RASTA is not used for every launch.

7 Q. Is there something else used instead?

8 A. For -- could you clarify if there is

9 something used for a particular purpose?

10 Q. If RASTA is not used for a launch, is

11 there another similar database that the Google team

12 uses?

13 A. Let's see. I think, first, I would

14 consider RASTA a tool rather than a database, but,

15 second, RASTA has a specific purpose of evaluating

16 metrics for changes within the ad serving system.

17 There are a variety of other launches and a variety

18 of other considerations that might be used when

19 evaluating those launches, and so RASTA isn't always

20 appropriate as a tool.

21 Q. I think I understand.

22 So is RASTA used to evaluate the

23 metrics for all changes within the ad serving

24 system?

25 A. Anything that's run as an experiment

Page 20

1 Q. What is a launch tool called?

2 A. Launch.

3 Q. Launch?

4 A. Yeah.

5 Q. When was Launch introduced?

6 A. I don't recall the specific timing,

7 and say within the last few years. I think roughly

8 2020 or 2021, thereabouts.

9 Q. Why did Launch replace Ariane?

10 A. I don't know the specifics for the

11 rewrite of the tool.

12 Q. How is Launch different from Ariane?

13 ATTORNEY McCALLUM: Object to form.

14 The witness can answer.

15 A. There is differences in UI,

16 differences in the configurability, and I believe

17 that there are abilities to have more -- more

18 standard policies and practices governed at the

19 Google level.

20 Q. What is UI?

21 A. User interface.

22 Q. Do employees at Google use Ariane or

23 Launch as a kind of summary or overview of

24 experiments?

25 A. Yes. The Launch tool can contain a

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1 will typically go through RASTA.

2 Q. Does Ariane identify launches that

3 include summaries of each launch?

4 A. Yes.

5 Q. Does each Ariane document also

6 contain links to other documents and sources?

7 ATTORNEY McCALLUM: Object to form.

8 The witness can answer.

9 A. It may contain a variety of links

10 within each ticket.

11 Q. Does it link to experimental results

12 contained in RASTA?

13 A. For the launches that use RASTA,

14 there would be links.

15 Q. Are there any successor databases to

16 RASTA?

17 A. Successor databases. Could you

18 clarify?

19 Q. Are there any databases or tools that

20 came into use later in time after RASTA that serve a

21 similar purpose?

22 A. No.

23 Q. Is the same true for Ariane?

24 A. Ariane was replaced by the launch

25 tool providing similar functionality.

Page 21

1 summary in description.

2 Q. In Ariane?

3 A. Yes.

4 Q. Do Ariane and Launch contain

5 summaries of experimental results?

6 A. It may vary from launch to launch.

7 It depends on the specifics of the launch.

8 Q. Is Launch generally seen as an

9 improvement over Ariane?

10 ATTORNEY McCALLUM: Object to form.

11 The witness can answer.

12 A. I don't really have a sense of the

13 company's company-wide sentiment.

14 Q. I understand.

15 Do you like it better?

16 A. Do I like it better? It feels

17 roughly equivalent to me from a functionality

18 perspective.

19 Q. The summaries that are in Ariane or

20 Launch, where do they come from? Does somebody

21 write them?

22 A. Yes.

23 Q. Who writes them?

24 A. This is typically done in

25 collaboration by the person who creates the launch

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1 ticket and the project owners.
2 Q. Who uses the summaries?
3 A. The reviewers will use the summaries.
4 Q. What is the function of the summary
5 beyond just the result of the experiment?
6 A. It describes the change and provides
7 a record of the kinds of product changes that we're
8 making.
9 Q. Does RASTA show the quantitative
10 results of the experiments?
11 A. Yes, when available.
12 (Stenographer clarification.)
13 Q. Does RASTA show the quantitative
14 results of the experiments?
15 A. Yes, when available.
16 Q. If I want to know why an experiment
17 was run, where would I look?
18 ATTORNEY McCALLUM: Object to form.
19 The witness can answer.
20 A. I think I couldn't really speculate
21 as to the origination of all of the experiments in
22 terms of the motivations and why.
23 Q. Might the summary show why an
24 experiment was run?
25 ATTORNEY McCALLUM: Object to form.

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1 what the motivation was for performing an
2 experiment?
3 ATTORNEY McCALLUM: Object to form.
4 A. I couldn't speculate for or state for
5 all experiments. There's hundreds to a thousand,
6 thousands of experiments that we run across display
7 ads.
8 Q. Does Google try to design RASTA
9 experiments to be as accurate as possible in a
10 scientific method kind of way?
11 ATTORNEY McCALLUM: Object to form.
12 A. We try to make sure that we have
13 statistical confidence within the metrics and that
14 there is sound data behind it.
15 Q. What else does Google do to try to
16 make sure that you have statistical confidence
17 behind the metrics?
18 ATTORNEY McCALLUM: Object to form.
19 A. I'm not sure I understand the intent
20 of the question beyond --
21 Q. You mentioned before that RASTA
22 experiments are randomized?
23 A. Uh-huh.
24 Q. Are there other design elements of
25 RASTA experiments that are standardized that help

Page 23

1 A. It's possible that some of the
2 artifacts provided would link to information.
3 Q. Does RASTA run experiments on live
4 Web traffic?
5 A. Yes.
6 Q. Does RASTA pick samples from live Web
7 traffic?
8 A. Technically, it's a different
9 system -- experimentation system that does the
10 sampling, but conceptually, yes.
11 Q. What is the system that does the
12 sampling?
13 ATTORNEY McCALLUM: Objection.
14 Beyond the scope. That is topic 7C rather than 7D,
15 but the witness can answer.
16 A. It's an experiment framework. It's
17 called the experiment framework.
18 Q. What is the function of the
19 experiment framework?
20 A. It manages the configuration around
21 changes and performs some of that random selection
22 of different experiments.
23 Q. Are RASTA experiments randomized?
24 A. Yes.
25 Q. Circling back, how would you find out

Page 25

1 ensure the experiment accuracy?
2 ATTORNEY McCALLUM: Object as beyond
3 the scope, but the witness can answer.
4 A. Not within RASTA.
5 Q. In the experiment framework?
6 A. In the experiment framework, that
7 also remains largely within the random traffic
8 selection.
9 Q. In each RASTA experiment, is the
10 traffic that receives the experimental treatment
11 chosen randomly from the population that was
12 eligible to participate in the experiment?
13 ATTORNEY McCALLUM: Object as beyond
14 the scope of the deposition, but the witness can
15 answer.
16 A. I didn't understand the difference
17 between that and the question around traffic
18 selection being random.
19 Q. If your answer is the same, that's
20 okay.
21 A. Okay. I believe the answer is yes,
22 that it's chosen randomly from the population.
23 Q. Are RASTA experiments blinded?
24 ATTORNEY McCALLUM: The same
25 objection regarding scope of the deposition, but the

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1 witness can answer.

2 A. I don't understand the term

3 "blinded."

4 Q. Are experiment participants aware

5 that they are participating in an experiment?

6 A. No.

7 Q. If experiment results were to show,

8 for example, that a publisher had received less

9 money than anticipated, does Google compensate the

10 publisher?

11 ATTORNEY McCALLUM: Object to form.

12 A. Yeah, that would be outside of the

13 policies and practices.

14 Q. What sizes are the experiment group

15 in RASTA typically?

16 A. It may vary depending on the stage of

17 experimentation. It frequently will ramp-up and

18 start from less than 1 percent, and depending on the

19 amount of data, it may go up towards 5 percent.

20 Q. How long is the ramp-up period?

21 ATTORNEY McCALLUM: I'll object to

22 this line of questioning as going beyond the scope

23 of the agreed testimony. These are questions going

24 towards topics 7B and C, but the witness can answer.

25 A. Many of the guidelines give around

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1 they may run for a shorter period, that there is

2 nothing new to learn.

3 Q. Is there something like a confidence

4 interval that applies to experiments?

5 A. Yes.

6 Q. Can you describe it?

7 A. The confidence interval is something

8 that is serviced in RASTA, and it provides a

9 statistical measure of our confidence within the

10 results that are shown.

11 Q. Does it have a standard value?

12 A. I don't think I understand that, the

13 question, standard value.

14 Q. My apologies.

15 Is there a standard confidence

16 interval used by Google for experiment?

17 A. Oh, I see.

18 I, again, not being within the

19 statistician side, don't know about the details of

20 how that's implemented.

21 Q. Great.

22 (Whereupon, document

23 GOOG-DOJ-AT-02204351 through 02204391, is received

24 and marked as Exhibit 1 for Identification.)

25

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1 one to two weeks for a ramp-up stage.

2 Q. If the volume of Google's

3 transactions were significantly smaller, would it

4 impact its ability to run experiments?

5 ATTORNEY McCALLUM: Object to form.

6 A. I'm not a statistician, so I wouldn't

7 know about the impact of the statistical confidence.

8 Q. What is an experimental unit?

9 A. I haven't heard the term before.

10 Q. Okay. Why would a decision-maker

11 choose to run an experiment for a longer than

12 standard period?

13 ATTORNEY McCALLUM: Object to form.

14 A. There might be a variety of reasons

15 why a decision-maker would want to run an experiment

16 longer.

17 Q. Could you please name a few?

18 A. Most likely if they wanted to see

19 more data, if there was inconclusive evidence from

20 the period run so far.

21 Q. Is there any reason why a

22 decision-maker would choose to run an experiment for

23 a shorter period?

24 A. Likewise, if there is already

25 confidence within results, that might be one reason

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1 BY ATTORNEY HANSEN:

2 Q. Now, I would like to hand you a

3 document and ask you some questions about it.

4 ATTORNEY HANSEN: Tab two, please.

5 CERTIFIED STENOGRAPHER: Number one.

6 BY ATTORNEY HANSEN:

7 Q. The document is being marked Hsueh

8 exhibit one.

9 It begins on a page with a Bates

10 number GOOG-DOJ-AT-02204351.

11 It's titled: Changes to Ad Manager,

12 AdMob auction DVA Review, September 2019.

13 A. Just give me a moment to flip

14 through.

15 Q. Just please take a moment.

16 A. Should I continue flipping through?

17 It's a pretty long document.

18 Q. It is pretty long.

19 All right. Have you generally

20 familiarized yourself with the document?

21 A. Yes, through most of the major

22 sections.

23 Q. Do you recognize this document?

24 A. I do not.

25 Q. Do you have any reason to doubt that

<p style="text-align: right;">Page 30</p> <p>1 it is a true and accurate copy?</p> <p>2 A. I do not, not having seen the</p> <p>3 document before.</p> <p>4 Q. Great.</p> <p>5 What is DVA review? Are you familiar</p> <p>6 with it?</p> <p>7 A. Yes. It is a review form for display</p> <p>8 and video ads.</p> <p>9 Q. What is its function?</p> <p>10 A. It's to make decisions across the</p> <p>11 display of video and app ads business.</p> <p>12 Q. Who is on it?</p> <p>13 A. The -- it would typically be senior</p> <p>14 leadership amongst that organization.</p> <p>15 Q. Who would some of those people have</p> <p>16 been in September 2019?</p> <p>17 ATTORNEY McCALLUM: Object to form as</p> <p>18 beyond the scope of topic 7D.</p> <p>19 The witness can answer.</p> <p>20 A. Yeah, I think I wouldn't know this --</p> <p>21 don't recall the specific individuals in 2019. It</p> <p>22 typically would have been vice-presidents of</p> <p>23 engineering and product.</p> <p>24 Q. Who are those people today?</p> <p>25 A. That would be Tim Craycroft, and Vlad</p>	<p style="text-align: right;">Page 31</p> <p>1 Sinaniyev, and Jay, my boss.</p> <p>2 Q. I'd like to turn to the page that's</p> <p>3 titled: Agenda, on page ending 4352.</p> <p>4 The green box says: Ask, approval to</p> <p>5 complete about 100 percent sell-side transition to a</p> <p>6 new auction model in two weeks.</p> <p>7 What does that mean?</p> <p>8 ATTORNEY McCALLUM: Object as beyond</p> <p>9 the scope of topic 7D, but the witness can answer.</p> <p>10 A. Yeah, like I said, this is the first</p> <p>11 time I'm seeing the document, and I wasn't</p> <p>12 intimately familiar with this project or review, so</p> <p>13 not sure what the authors intended in terms of the</p> <p>14 decision.</p> <p>15 Q. Now, I'd like to turn to page ending</p> <p>16 4360. This slide is titled: Unified Pricing</p> <p>17 Meaningfully Improves Inventory Access by Leveling</p> <p>18 the Playing Field; is that correct?</p> <p>19 ATTORNEY McCALLUM: Object to the</p> <p>20 form and object as beyond the scope of topic 7D.</p> <p>21 The witness can answer.</p> <p>22 A. That appears to be the title of this</p> <p>23 slide.</p> <p>24 Q. This page is mostly occupied by a</p> <p>25 table, and I'd like to ask more about the table.</p>
<p style="text-align: right;">Page 32</p> <p>1 What is the source of this material?</p> <p>2 ATTORNEY McCALLUM: The same</p> <p>3 objection.</p> <p>4 The witness can answer.</p> <p>5 A. Again, first time seeing this</p> <p>6 document. So I don't really know, but it appears to</p> <p>7 be a screenshot from RASTA.</p> <p>8 Q. In general, would RASTA look</p> <p>9 different if viewed directly rather than viewing a</p> <p>10 screenshot?</p> <p>11 A. The UI here would be similar and the</p> <p>12 types of information would be similar.</p> <p>13 Q. Would this have captured the results</p> <p>14 from RASTA accurately?</p> <p>15 ATTORNEY McCALLUM: Object to form.</p> <p>16 A. I couldn't say without knowing how it</p> <p>17 was produced.</p> <p>18 Q. Does this table seem to show the</p> <p>19 results of an experiment performed by Google?</p> <p>20 A. Yes, it appears so.</p> <p>21 Q. Did the experiment use live Web</p> <p>22 traffic?</p> <p>23 A. I -- I couldn't say, but I would</p> <p>24 expect so.</p> <p>25 Q. Was the web traffic only for open Web</p>	<p style="text-align: right;">Page 33</p> <p>1 display advertising?</p> <p>2 A. I don't think I would be able to</p> <p>3 determine that from this screenshot.</p> <p>4 Q. Can you determine when the experiment</p> <p>5 was performed?</p> <p>6 A. No, I cannot.</p> <p>7 Q. Can you determine how long the</p> <p>8 experiment would have taken?</p> <p>9 A. No.</p> <p>10 Q. Can you determine what proportion of</p> <p>11 traffic the experiment used?</p> <p>12 ATTORNEY McCALLUM: Could you clarify</p> <p>13 that question, counsel?</p> <p>14 Q. What proportion of live Web traffic</p> <p>15 this experiment used?</p> <p>16 A. No, I couldn't determine that from</p> <p>17 the screenshot.</p> <p>18 Q. If it was an experiment that occurred</p> <p>19 within the standard guidelines you described</p> <p>20 earlier, how long would it have taken?</p> <p>21 ATTORNEY McCALLUM: Object to form.</p> <p>22 A. Yeah, I couldn't really speculate for</p> <p>23 the experiment, but again, generally, we would run</p> <p>24 for one to two weeks.</p> <p>25 Q. And in general, what proportion of</p>

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1 than I'm familiar with.

2 Q. Okay. I have no further questions

3 about this document. Thanks.

4 ATTORNEY HANSEN: Sorry, that was

5 kind of fast.

6 Okay. That concludes my questioning

7 today. Thank you very much, Mr. Hsueh.

8 Counsel, for the record, the U.S. has

9 held other portions of the 30(b)(6) deposition open

10 based on the lack of preparation of the designated

11 witnesses. We intend to use the balance of the time

12 and may use additional time as the Court permits to

13 remedy that deficiency. For the record, the U.S.

14 has --

15 THE VIDEOGRAPHER: We're at one hour

16 38, so --

17 ATTORNEY HANSEN: The U.S. has 26

18 minutes on the record.

19 ATTORNEY McCALLUM: And just for

20 clarity, can I ask counsel, are you contending that

21 this witness was insufficiently prepared as a

22 corporate representative?

23 ATTORNEY HANSEN: No, sir, I'm not.

24 ATTORNEY McCALLUM: Okay. And we

25 obviously disagree and reserve all rights with

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1 I wish to make the following changes, for the

2 following reasons:

3 PAGE LINE

4 ____ CHANGE: _____

5 REASON: _____

6 ____ CHANGE: _____

7 REASON: _____

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13 REASON: _____

14 ____ CHANGE: _____

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16 ____ CHANGE: _____

17 REASON: _____

18 ____ CHANGE: _____

19 REASON: _____

20 ____ CHANGE: _____

21 REASON: _____

22

23

24

25

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1 respect to plaintiff's assertions that any other

2 Google witnesses were insufficiently prepared.

3 ATTORNEY HANSEN: Okay. Off the

4 record, please.

5 THE VIDEOGRAPHER: All right. If

6 that is everything, off the record on November 15,

7 2023 at 12:35.

8 (Time noted: 12:35 p.m.)

9

10 _____

11 JASON HSUEH

12 Subscribed and sworn to before me

13 this ____ day of _____ 2023.

14

15

16 _____

17 Notary Public

18 My Commission Expires:

19 /

20 /

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22

23

24

25

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1 PAGE LINE

2 ____ CHANGE: _____

3 REASON: _____

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23 REASON: _____

24


25

1 CERTIFICATE
2 I, RICHARD GERMOSEN, Fellow of the
3 Academy of Professional Reporters, stenographic New
4 Jersey Certified Court Reporter, New Jersey Certified
5 Realtime Court Reporter, California Certified
6 Shorthand Reporter, California Certified Realtime
7 Reporter, NCRA Registered Diplomat Reporter, and
8 NCRA Certified Realtime Reporter, do hereby certify:

9 That JASON HSUEH, the witness whose
10 deposition is hereinbefore set forth, having been
11 duly sworn, and that such deposition is a true
12 record of the testimony of said witness.

13 I further certify that I am not related
14 to any of the parties to this action by blood or
15 marriage, and that I am in no way interested in the
16 outcome of this matter.

17 IN WITNESS WHEREOF, I have hereunto set
18 my hand this 15th day of November 2023.

19 
20 _____

21 RICHARD GERMOSEN,
22 FAPR, RDR, CRR, CCR-NJ, CRCR, CSR-CA, CCRR-CA,
23 NYACR, NYRCR
24 LICENSE NO. 30XI00184700
25 LICENSE NO. 30XR00016800
California CSR No. 14391
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